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#### REVERSE AUCTION METHOD AND SYSTEM

#### **BACKGROUND OF THE INVENTION**

#### 5 Field of the Invention

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This invention relates to on-line auctions. In particular, this invention relates to methods and systems to provide on-line business-to-business procurement services via the Internet, featuring the posting of buyer requirements for services and products and matching of supplier bids for fulfillment of buyer requirements.

#### **Description of Related Art**

Current on-line airline ticket auctions provide individual buyers with the opportunity to bid on an airline ticket. Generally the buyer specifies the travel dates, the departure and arrival cities, and the maximum amount of money that the buyer is willing to pay per ticket. The specified information is forwarded by the on-line auction provider to several airlines or agents in an attempt to obtain the tickets at the desired price.

The buyer then receives a notification from the on-line auction provider indicating whether the buyer's bid has been accepted by an airline or not. In current on-line auctions the buyer is not able to directly negotiate a price with the airline. Further, the current on-line auction providers are not adequate for satisfying the needs of corporate buyers that are interested in buying a large number of tickets. This is so because in current on-line auctions the airline tickets are non-transferable. Further, no discounts can be negotiated with an airline when a large number of tickets are bought at once by a single buyer. Still further, the only relevant information taken into

account as part of the determination of accepting bids is the price of a ticket.

Therefore, there is a need in the art for auction methods and systems that present to a corporate buyer and allows a seller to introduce information other than price information for a service or product as part of an auction process, where the buyer and the seller are able to directly negotiate an agreement.

#### SUMMARY AND OBJECTS OF THE INVENTION

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On-line reverse auction methods and systems are disclosed. Specifically, such methods and systems enable a buyer interested in purchasing a product or service to create a request for proposals and to upload it in a web site for access by suppliers. The suppliers submit bids by uploading them into the web site in reply to the request for proposals. The buyer as well as the suppliers may view all the bids submitted.

The buyer may review bid details for bids submitted in reply to the request for proposals while a supplier may review bid details for his or her bid submitted. The bid details may be reviewed by accessing the web site. Once a bid has been accepted by the buyer or a counter offer is accepted by the seller, a confirmation of the acceptance is sent to the buyer and to the supplier that submitted the accepted bid.

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It is an object of the present invention to provide methods and systems that present to a corporate buyer and allow a seller to introduce information other than price information for a service or product as part of an auction process, where the buyer and the seller are able to directly negotiate an agreement. Further, it is another object of the present invention to provide buyers and sellers with the ability to execute a deal or commitment in conducting business with each other. Further, it is another object of the present invention to achieve the objects stated above by enabling both buyers and sellers to negotiate agreements via the Internet. Still further, it is another object of the present invention to post in a web site details of requests for proposals submitted by buyers and of bids submitted by sellers in order to facilitate the negotiating process.

With these and other objects, advantages and features of the invention that may become hereinafter apparent, the nature of the invention may be more clearly understood by reference to the following detailed description of the invention, the appended claims and to the several drawings attached herein.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The preferred embodiments of this invention will be described in detail, with reference to the following figures, wherein:

FIG. 1 is a drawing of a flowchart of a first method of the present invention;

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FIGS. 2A-2C are drawings of a user interface for entering the user's registration information in accordance with the embodiments and methods of the present invention;

FIGS. 3A-3D are drawings of a user interface for entering the buyer's travel policy information in accordance with the embodiments and methods of the present invention;

FIG. 4 is a drawing of a user interface for uploading travel history data into a web site in accordance with the embodiments and methods of the present invention;

FIGS. 5A-5C are drawings of a user interface for creating a request for proposals in accordance with the embodiments and methods of the present invention;

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FIG. 6 is a drawing of a display of requests for proposals that are open for bids and the corresponding bids in accordance with the embodiments and methods of the present invention;

FIG. 7 is a drawing of the details of bids submitted in reply to a request for proposals in accordance with the embodiments and methods of the present invention;

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FIG. 8 is a drawing of a user interface for responding to a bid in accordance with the embodiments and methods of the present invention;

FIG. 9 is a drawing of a user interface for searching for a request for proposals in accordance with the embodiments and methods of the present invention;

FIG. 10 is a drawing of a display of the results from the search for requests for proposals in accordance with the embodiments and methods of the present invention;

FIG. 11 is a drawing of a display of buyer history being accessed by a supplier in accordance with the embodiments and methods of the present invention;

FIG. 12 is a drawing of a display of requests for proposals submitted by a buyer in accordance with the embodiments and methods of the present invention;

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FIG. 13 is a drawing of the transactions between buyers and suppliers in accordance with the embodiments and methods of the present invention.

FIG. 14 is a drawing of a user interface for entering bids in accordance with the embodiments and methods of the present invention;

FIGS. 15A-15B are drawings of a display of the bids submitted by a supplier in reply to several requests for proposals in accordance with the embodiments and methods of the present invention; and

FIG. 16 is a drawing of a system for implementing a reverse auctioning method in accordance with the embodiments and methods of the present invention.

These and other features and advantages of this invention are described in or are apparent from the following detailed description of the preferred embodiments.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings in which like elements are shown by like reference numerals, FIG. 16 shows a reverse auctioning system 1600 according to one embodiment of the present invention. The system may include personal computers used by buyers (i.e., buyer PCs 1601-1603), personal computers used by suppliers (i.e., supplier PCs 1604-1606), at least one exchange server 1610, a collection of web and database servers 1611, and a network (i.e., Internet 1612) that interconnects the PCs 1601-1606 and the servers 1610-1611.

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The buyer personal computers 1601-1603 and the supplier personal computers 1604-1606 may be stand-alone personal computers. Alternatively, the personal computers 1601-1603 may be interconnected via the buyer company's intranet. Similarly, the supplier personal computers 1604-1606 may be interconnected via the supplier company's intranet.

In one embodiment of the present invention, a buyer may be a corporation interested in buying airline tickets from a supplier (e.g., an airline). A buyer may also be represented by a travel agency.

Although the functions performed by server 1610, web server 1611a, and database server 1611b may be implemented in a single server unit, they are each illustrated separately to emphasize their respective functionality. The server 1610 may include a computer with the capability to process data at high speed. The web and database servers 1611a-b may include computers equipped with software to run a web site and a database system. For example, the web server 1611a may be a Windows NT server and may include software such as Microsoft Internet Information Services, used for delivering static html pages generated to support the functionality

of the user-interfaces shown below and for modeling data maintained in the database server 1611b. The web server 1611a may also include software responsible for replication of data between the database 1611b and server 1610. The database server 1611b may be implemented by running Oracle's SQL server 7.0 in a separate Windows NT server.

In the system 1600, the web server 1611a serve as a front-end server to collect from and transmit data to the buyer PCs 1601-1603 and the supplier PCs via the Internet 1612. The data may be stored in the database servers 1611b.

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The exchange server 1610 may be connected to the web and database servers 1611a-b via the Internet 1612. The exchange server 1610 may access data from the web and database servers 1611a-b. Using the accessed data, the exchange server 1610 performs functions such as searching for requests for proposals based on criteria entered by suppliers, ranking bids, etc.

FIG. 13 illustrates a high level diagram of potential transactions that can take place as part of the on-line auction. In the figure, each buyer 1302 submits one RFP. On the other hand, each supplier 1306 may respond to more than one RFP. A more realistic example, though not illustrated, is one in which each buyer submits more than one RFP and each seller bids on any of the submitted RFPs.

FIG. 1 illustrates a flowchart of a method for conducting an on-line reverse auction according to one embodiment of the present invention. Step 101 includes the on-line registration of a buyer and at least one supplier or seller. The information entered by either a buyer or a seller as part of the on-line registration 101 is described in the discussion of FIG. 2 below.

In step 102 the buyer may enter information about the company as well as historical and projected travel information. The information entered by the buyer as part of step 102 is described in the discussion of FIGS. 3A and 3B below.

In step 103 a buyer creates a request for proposals (RFPs) that may be based on historical data. The historical data may be entered as part of the step 102 or may be automatically created by keeping a record of the buyer's travel preferences over time. The RFP may include information such as travel dates, departure and arrival airports, desired class of service, number of seats, etc., that would allow a supplier searching for an RFP to judge whether the RFP is of interest and to submit a bid in reply to the RFP (step 104).

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For an RFP that remains open (e.g., a buyer has not accepted an offer submitted in reply to the RFP), the submitted bids may be viewed by the buyer and the sellers that have submitted bids (step 105). That is, the bidding activity may be viewed by accessing the exchange server 1610 of FIG. 16.

Step 106 may include the viewing of details for bids submitted in reply to a particular RFP. The display of bid details is described in the discussion of FIG. 7 below.

Step 107 includes actions that may be taken by a buyer as part of the reverse auction. These may include withdrawing the RFP, declining a bid, accepting a bid, or making a counter-offer.

Step 108 includes actions that may be taken by a supplier or seller as part of the reverse auction. These may include accepting or declining a counter-offer and countering a counter-offer.

In step 109 a seller may send a corporate identification (ID) number to a buyer once a purchase agreement has been reached. After the corporate ID number is sent, the transaction may be closed by the buyer.

In step 110 the web server 1611 transmits a notice to the buyer as well as the seller that submitted the winning bid. The notice indicates confirmation of bid acceptance.

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FIG. 2A illustrates a user interface 200 for entering the user's registration information. The user interface may be displayed in any one of the buyer PCs 1601-1603 in FIG. 16.

The interface 200 may include fields for logging in by entering a user name 202 and a password 204. An additional field 206 to provide password confirmation may also be provided. The login process may take place before actual registration into the system. That is, a new user may receive via E-mail a login and password needed for registration into the system. Alternatively, a user may first register and then obtain a login name and password.

FIG. 2B shows the fields in the interface 200 that are used for entering information about the company. The information may include the company name 208, the company category 210, the taxpayer identification number of the company 212, the company's address 216, the city, state and country in which the headquarters are located (218, 220, 222), the company's telephone and fax numbers (224, 226), the DUNS number 228, and the company's web site address 230.

The DUNS number may be defined as the number that the Dun & Bradstreet corporation assigns to a corporation in order to associate that corporation with a particular industry, etc. The DUNS number may be used in the present invention to

verify that a particular corporation signing up for registration is indeed a genuine corporation.

As part of the registration process, the buyer enters contact information as illustrated FIG. 2C. Specifically, the buyer may enter his or her name 232, his or her title 234, e-mail address 236, primary language 238 telephone number 240 and fax number 242 information.

FIG. 3A illustrates a user interface 300 for entering the buyer's travel policy information. The travel policy information may be included as part of the RFP and may be used by a seller in targeting RFPs on which to submit a bid.

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The buyer may enter an alias 302 to maintain anonymity during the on-line auction process. The buyer may enter the name of an agency 304 to be used in booking travel along with the corresponding agency number 306. The agency IATA number refers to a number assigned by the Air Transport Association and may be used to identify travel agencies that book air travel. Further, the buyer may indicate whether the use of the current agency is enforced 308. That is, the buyer may have a travel agency of record the use of which may be enforced in booking travel through the system of the present invention as indicated in field 308. Finally, if the buyer does not want to enforce the use of the current agency but instead wants to enforce the use of a new agency for booking travel, the buyer may so indicate by use of the field 310.

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The buyer may enter a class of service desired for flights that take less than a certain number of hours 312 or that last over another number of hours 314. The class of service can include coach, business, or first class. The buyer may also specify whether a non-stop flight is desired 316.

The buyer may enter alternate airport information in field 318 and travel pattern information in fields 320 and 322. The travel pattern information may include a current annual air volume 320 and expected change in air travel 322. The current annual air volume may indicate the calendar year annual air volume in dollars. The expected change 322 in air travel may be indicated in terms of percentage for the next calendar year.

Turning to FIG. 3B, the user interface 300 may also include a field 326 in which the buyer indicates that only certain suppliers will be able to bid on the RFP.

The airlines in field 326 may be selected from a list of available airlines 324.

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FIG. 3C displays fields 328 in which the buyer may enter the reasons why the airlines in list 326 were disregarded. Finally, FIG. 3D displays a message displayed to the buyer upon successful registration. After the message has been displayed, an email is sent to the buyer with the username and password confirmation.

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FIG. 4 illustrates a user interface 400 for uploading travel history data into a web site. In the example of FIG. 4, the travel history data may be located in a file in any one of the buyer PCs 1601-1603. The user interface 400 provides a field 402 for entering the name of the travel history file. The travel history data may be used to create an RFP. An RFP may also be created manually without relying on the upload of the travel history data.

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The travel history data to be uploaded may be limited to only a part of the travel history. For example, the travel history may be limited by specifying a start date and an end date. The user interface 400 provides fields for entering a start date 404 and an end date 406. The user interface 400 also provides fields for entering the

country in which the tickets were purchased (408) and for entering future dates to travel (410 and 412).

The travel history data file may be created by using a spreadsheet program such as Excel. Further, the travel history data file may have fields that specify rank information, city pair information, airline, segment count, revenue, and class of service.

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The rank refers to market rank based on revenue. The rank field is filled with a number, where one would be the highest rank. The revenue may be defined as the sum of the one-way trip cost of a market on a particular carrier minus the amount spent on commissions, discounts, taxes, etc.

The city pair field includes the bi-directional origin and destination cities, while the airline field includes the airline flown between the city pair.

The segment count field may include the sum of the number of segments flown in a particular market on a particular carrier. A segment may be defined as a one way trip. A market may be defined as the origin and destination cities. In a hotel context, a market may be defined as the location of a hotel. Further, in a car rental context, a market may be defined as the location of car pick up and return.

The revenue field may include the sum of the segment cost of a market on a particular carrier. The class of service field may indicate the class of service flown in a market on a carrier per segment basis, which may be defined as how much a corporation spends on a particular market and for a particular class of service (e.g., 100 one-way trips from Philadelphia to Dallas in coach class, where each one-way trip costs \$300.00). The revenue field would then include \$30,000 (100\*\$300.00) as the total revenue spent on the market.

FIG. 5A illustrates a user interface 500 for manually creating an RFP. The user interface may include fields for entering a category 502; the booking country 504; origin and destination cities (506 and 508); segments 510; travel start date and end date (512 and 514); the service class 516; the RFP start date and expiration date (518 and 520); and a section for access control 522.

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The category field 502 may refer to the type of service or product for which the RFP is being submitted. The user interface 500 of FIG. 5A is customized for airline travel. Modifications of that embodiment may include the customization of the user interface so as to reflect RFPs for which a product or a service other than airline travel is desired.

The booking country field may refer to the country in which the airline tickets are being purchased. In field 506 the buyers may specify what airport or airports they may be willing to depart from. Similarly, in field 508 the buyers may specify the airport or airports where they may be willing to arrive.

Buyers may enter the segment (i.e., one-way trip) information in field 510.

For example, the 100 segments in field 510 reflects 100 one-way trips being requested as part of the RFP.

Fields 512 and 514 may include a date or date range in which travel starts and ends respectively. In field 516 buyers may enter the service class desired. For example, buyers may specify coach, business, or first class.

In field 518, buyers may enter a date on which the RFP becomes available in the system for access by sellers. The field 520 includes the date on which the RFP stops being available in the system for review by the sellers.

The access control section 522 in the user interface 500 includes a list of the airlines excluded from the RFP.

FIG. 5B illustrates a user interface 524 for creating RFPs by using uploaded travel history files. FIG. 5C includes a section 526 for specifying the travel history dates used in creating a RFP. Also illustrated in FIG. 5C is a list of RFPs created from uploaded travel history files.

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FIG. 6 illustrates a display of a buyer's RFPs that are open for bids as well as the corresponding bids. FIG. 6 also illustrates three bids submitted (624, 626, 628) for a single RFP. The RFPs are assigned an RFP number 602. In addition to displaying the RFP number, additional information about the RFPs is included. Each RFP in the list has an "active" status, which indicates that the RFPs are open for bidding. A status other than active may include "available", meaning that no response or bid has been received; "response", meaning that an airline has either submitted a bid or countered a buyer's counter-offer; "under offer", meaning that the buyer has counter-offered and awaits a response; "sold", meaning that an offer or bid has been accepted by the buyer; and "declined", meaning that bids made were not accepted by the buyer and bidding is closed. Other RFP and bid related information includes the bid supplier 604, booking country 606, city pair 608, number of segments offered 610, number of segments requested 612, service class 614, standard and travel dates (616, 618), and RFP start and end dates (620, 622).

FIG. 7 illustrates the details of bids submitted in reply to a specific RFP 702. Each bid has an associated status 703, which may indicate whether the bid is new, has been updated, countered by the buyer, or declined. Sellers also have access to bid details for a specific RFP and can therefore update their bids in an attempt to have

them accepted by the buyer. In one embodiment of the present invention, once a bid has been declined for a particular RFP, the seller that submitted the declined bid may not update that bid or submit a new one in reply to that RFP.

The field 704 indicates the name of the airline submitting the bid. The seller commitments section may include the price 705, percentage discount 706, percentage rebate 708, upgrades 710, and frequent flyer miles 712.

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The buyer commitments section includes segment fields 714, percentage of one-way trips offered 716, percentage revenue 718, and revenue amount 720. The segment fields 714 include the number of segments offered by an airline at the price per segment indicated in the price column 705.

The percentage revenue 718 may include the percentage of revenue spent on a given market that may be required by the supplier in order to give a discount or incentive. For example, a supplier may expect to receive \$100,000.00 worth of business on a particular market or bundled market (at least two markets) in exchange for a 10% discount on these markets. In another example, a supplier may expect to receive 50% of the amount of money spent on a particular market, i.e., a buyer spends \$300,000.00 per year on a given market and the supplier expects at least \$150,000.00 from the buyer.

FIG. 8 illustrates a user interface 800 for responding to a bid. A buyer may review a bid 624 for a particular RFP number 802 and may reply to the bid by either accepting, declining, or countering the bid using the buttons 804.

FIG. 9 illustrates a user interface that is displayed to a seller for searching for either buyers or RFPs in the system which meet certain criteria. The user interface 900 may include fields 904 that allow a seller to search for RFPs based on criteria

such as the departure or arrival airport specified by a buyer, city pair, number of segments, service class, travel dates, etc.; fields 906 which allow the seller to search for RFPs from buyers based on buyers criteria such as the headquarter location of the buyer's company, the buyer's travel agency, expected change in air volume, etc.

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The search field 902 provides sellers with the option of searching for all available RFPs that have been opened within a certain period of time. Finally, the seller has the option of searching for RFPs by clicking on button 908 in the user interface 900; or searching for buyers, by clicking on button 910.

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The RFP information may reside in the database 1611 of FIG. 16 and the search may be implemented by conducting a query into the database by using, for example, SQL commands that include the information entered in the fields 904 and 906 as parameters for the query. Once the RFPs that meet the description in the fields are retrieved from the database, they may be displayed to the seller. Each RFP includes information in addition to that used by the seller as parameters for the search.

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FIG. 10 illustrates a display of the results from the search for buyers. The buyers may be identified by an alias 1002. The information displayed may be related to a specific RFP, submitted by the buyer 1002, which met the RFP search criteria. The information may include client air volume 1006, booking agency for the specific RFP 1004, headquarter city 1008 and headquarter's state 1010. The air volume may be defined as the total amount a corporation expects to spend on air travel over a specified period of time. For example, a corporation's annual air volume of \$1,500,000.00 means that the corporation is expected to spend that amount of money on air travel over the course of the year.

FIG. 11 illustrates an exemplary display of buyer history information as accessed by a supplier. The information displayed may include the buyer's alias 1102, the annual air volume in dollars 1104, expected air volume change 1114, the booking agency 1106 and associated IATA numbers 1112, agency enforcement indication 1108, agency required to book 1110, and travel policy information 1116. The seller may access a list of flights booked 1118 by the buyer within a historical data date range of interest.

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FIG. 12 illustrates a display of list of RFPs 1204 submitted by a particular client 1202. The list 1204 may include a buyer's RFP that met the search criteria of a seller, as well as other RFPs submitted by the same buyer.

FIG. 14 illustrates an interface 1400 for entering bids. Once a buyer identifies a bid of interest, the buyer may start to negotiate with the seller that submitted that bid. The buyer may counter the initial bid as part of the negotiations. The user interface 1400 may display the original bid made by the seller 1401 as well as the counter offer 1402. The interface 1400, when displayed to the supplier, provides the supplier with a field 1404 to respond to the buyer's counter offer.

FIG. 15A illustrates a list 1502 of the bids in progress submitted by a supplier in reply to several RFPs. The information on the list may include the RFP number 1504, the buyer alias 1506, booking country 1508, city pair 1510, number of segments offered in the bid 1512, number of segments initially requested by the buyer 1514, the service class 1516, the travel start date 1518, the travel end date 1520, the RFP start date 1522 and the RFP expiration date 1524. Similarly, FIG. 15B illustrates a list of RFPs that have been finalized 1526. The list 1526 includes a section specifying those RFPs sold to other suppliers 1528 as well as those declined 1530.

While this invention has been described in conjunction with the specific embodiments outlined above, it is evident that many alternatives, modifications and variations are apparent to those skilled in the art. Accordingly, the preferred embodiments of the invention as set forth above are intended to be illustrative and not limiting. Various changes may be made without departing from the spirit and scope of the invention.

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What is claimed is:

An on-line reverse auctioning method comprising:
 receiving information from a buyer to create a request for proposals;
 posting the request for proposals in a web site for access by sellers;
 displaying to the sellers and to the buyer via the web site at least one bid
 submitted in reply to the request for proposals by at least one of the sellers; and
 receiving notification of acceptance for one of the bids.

2. The method of claim 1, wherein receiving information from a buyer to create the request for proposals comprises:

receiving a service category;
receiving a start date for access to the request for proposals;
receiving number of segments; and
receiving an expiration date for access to the request for proposals.

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3. The method of claim 2, wherein receiving information from a buyer to create the request for proposals further comprises:

receiving airline travel as the service category;
receiving airport departure and arrival information; and
receiving travel dates.

- 4. The method of claim 1, further comprising: displaying bid details for the request for proposals.
- 5. The method of claim 1, further comprising:

receiving a record of historical travel data of the buyer and posting the record in the web site.

6. The method of claim 5, wherein receiving information from a buyer to create the request for proposals comprises:

receiving one of an historical travel data record in its entirety, multiple selections from the record, and a single selection from the record, to create the request for proposals.

7. The method of claim 5, wherein receiving the record of the buyer's historical travel data comprises:

receiving origin and destination cities;

receiving an airline used to travel between the origin and destination cities; receiving sum of number of one way trips flown in a particular market on a

particular airline;

receiving an expected change in travel information;

receiving a sum of segment cost of a market on a particular airline; and

receiving information indicating class of service flown in a market on airline

per segment.

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8. The method of claim 1, further comprising:

creating an electronic contract between the buyer and the seller that submitted the accepted bid.

9. The method of claim 1, further comprising: receiving offers from the buyer and a seller to negotiate a bid.

- 10. The method of claim 9, wherein receiving offers comprises receiving a counter offer.
  - 11. The method of claim 9, wherein declining a received offer stops negotiation of the bid.
- 10 12. The method of claim 10, wherein declining a received counter offer stops negotiation of the bid.
- 13. An on-line reverse auctioning method comprising:
  searching for requests for proposals in a data base;
  15 accessing a request for proposals;
  receiving a first bid in reply to the request for proposals;
  displaying other bids received in reply to the request for proposals; and
  sending a notification to a party that submitted the request for proposals when
  that party accepts a bid.
- 20 14. The method of claim 13, further comprising displaying bid details for the request for proposals.
  - 15. The method of claim 1 wherein displaying bid details includes at least one of the following:

displaying rank of a bid;

displaying status of a bid;

displaying supplier making a bid;

displaying price;

displaying discount off the point of sale purchase price;

displaying cash back information;

displaying upgrades information;

displaying miles credited;

displaying expiration date of bid;

displaying number of segments;

displaying segments as a percentage of the total number of expected trips; and displaying revenue percentage.

16. The method of claim 13, further comprising:

updating the first bid after seller review of other bids.

17. The method of claim 13, further comprising:

receiving a counter offer from the party that submitted the request for proposals.

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18. The method of claim 13, wherein searching for request for proposals comprises:

receiving search criteria that includes a city pair, airport code, number of segments, class of service, travel start and end dates, request for proposals open and expire dates, and request for proposals number.

- 5 19. The method of claim 13, further comprising searching for buyers with available request for proposals.
  - 20. The method of claim 19, wherein searching for buyers with available request for proposals comprises:
- receiving search criteria that includes at least one of the following:

  annual travel volume; travel agency; buyer identification number; booking

  agency; agency IATA number; expected change in travel volume; alternate airport

  information; and buyer headquarters location.
- The method of claim 13, wherein accessing a request for proposals includes: displaying generic buyer information without the buyer's name being displayed.
  - 22. The method of claim 13, wherein accessing a request for proposals includes displaying buyer history information.
    - The method of claim 13, wherein receiving a first bid comprises:
      receiving a price and at least one of the following:
      receiving a percentage discount;
      receiving rebate information;

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receiving upgrades information; and receiving frequent flyer miles included as a bonus offer.

The method of claim 13, wherein receiving a first bid comprises:
 receiving information on percentage of revenue on offer made;
 receiving percent of business desired from offer based on segments; and
 receiving price per segments; and entering number of segments committed by

buyer.

10 25. The method of claim 14 wherein displaying bid details includes at least one of the following:

displaying rank of a bid;

displaying status of a bid;

displaying supplier making a bid;

displaying price;

displaying discount off the point of sale purchase price;

displaying cash back information;

displaying upgrades information;

displaying miles credited;

displaying expiration date of bid;

displaying number of segments;

displaying segments as a percentage of the total number of expected trips; and displaying revenue percentage.

A system for conducting an on-line reverse auction comprising:
means for searching for requests for proposals in a data base;
means for accessing a request for proposals;
means for receiving a first bid in reply to the request for proposals;
means for displaying other bids received in reply to the request for proposals;
means for displaying bid details for the request for proposals; and
means for sending an identification number to a party that submitted the
request for proposals when that party accepts a bid.

- 27. A system for conducting an on-line reverse auction comprising:

  means for receiving information from a buyer to create a request for proposals;

  means for posting the request for proposals in a web site for access by sellers;

  means for displaying to the sellers and to the buyer via the web site at least

  one bid submitted by at least one of the sellers in reply to the request for proposals;

  and
  - means for receiving notification of acceptance for one of the bids.

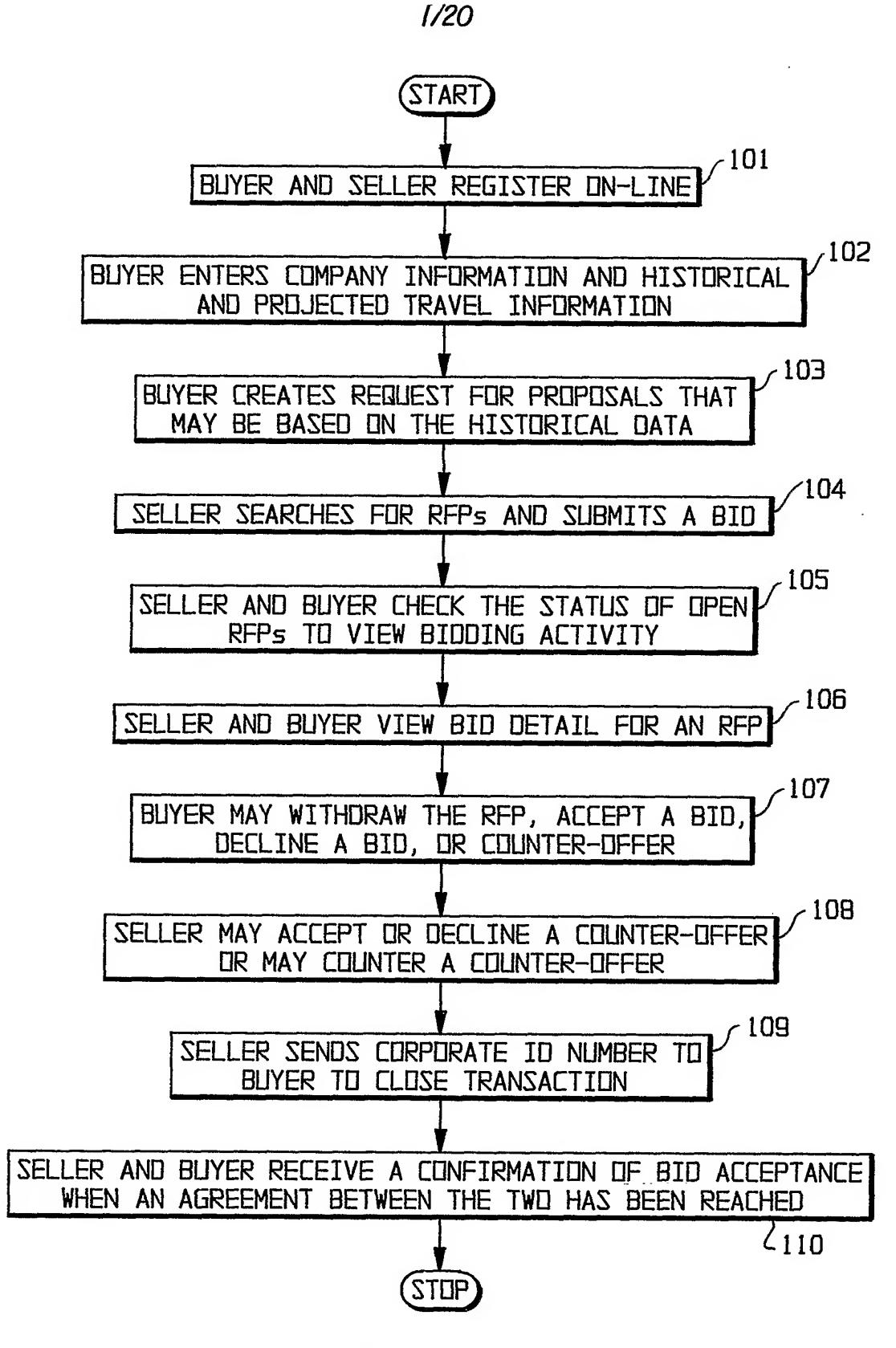


FIG.1

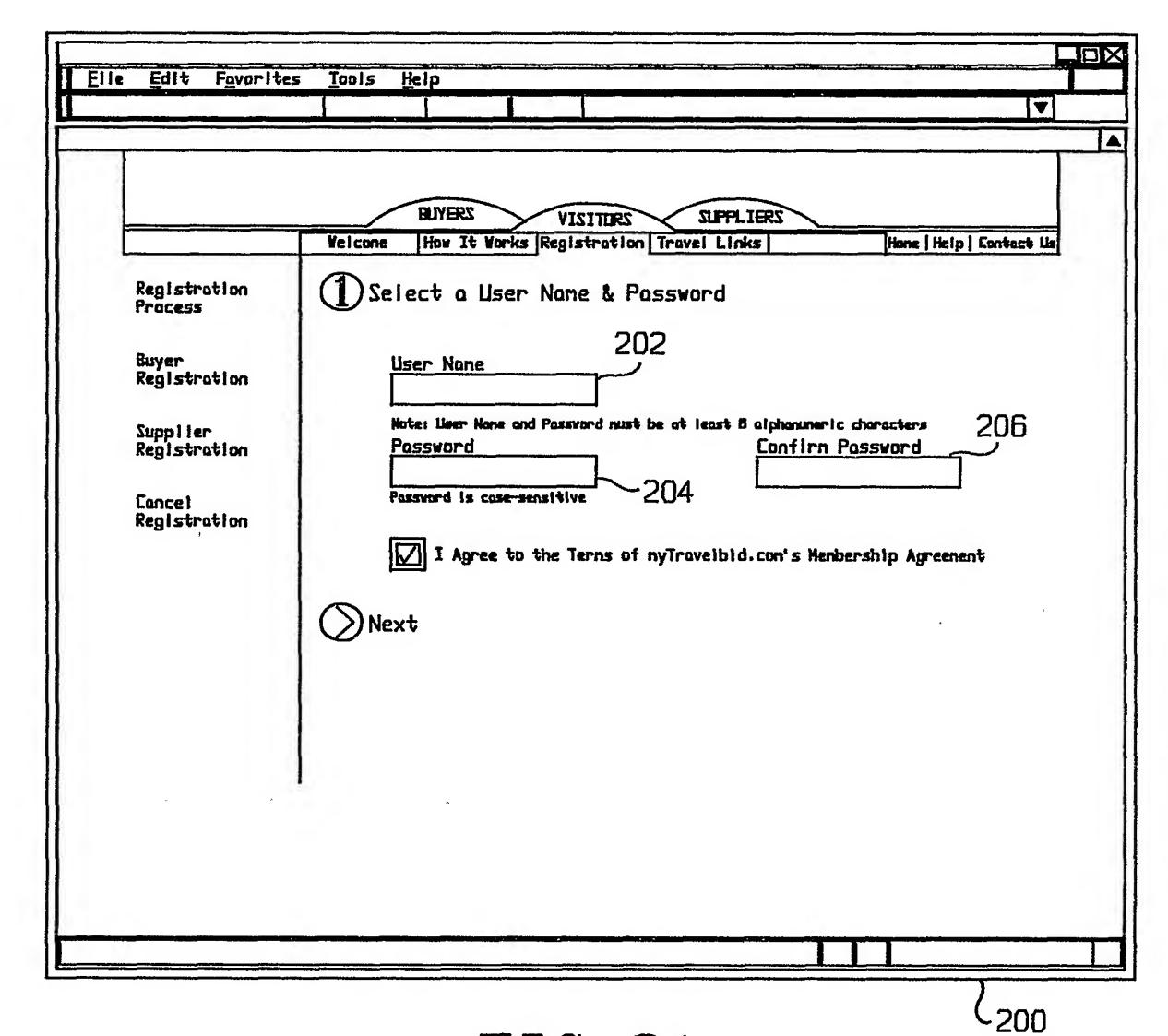


FIG.2A

	BLIYERS	VISITURS SUPPLIERS	
	Welcone How It Works R		Hone   Help   Contact L
Registration Process	2 Enter your comp	any information	
Pouga	USER NAME: BLIYER	1234	
Buyer Registration			
Street Law	Conpany Nane	Buyer Conpany, Corp.	*
Supplier Registration	Conpany Category	Biotechnology	*
Cancel	Taxpayer ID (US DNLY)	09   1400001   * 212	<sup>C</sup> 210
Registration	If your company!	Is aiready a nyTravelbid.con nenber, e ne box and click "Next"	nter the above
	Information, check th	ne box and click "Next"	
	CURPURATE HEADQUA	RTERS INFORMATION	
- 13			216
	Main Address	1234 Market Street *	
		2nd Floor	
			_218
	City	Philadelphia *	
11	State/Prov./Other		220 <i>(</i> 22
	Postal Code/Zip	13173	}
1	Country	LINITED STATES	▼
	Main Phone/Ext	215-555-1212 × 123 22	
	Main Fax	215-555-1213	226
	DUNS Nunber	12 - 123 - 1234 228	
	Web Site/LIRL	www.buyerconpany.com	230
		* Required Field	
	Next		
		e st	

FIG.2B

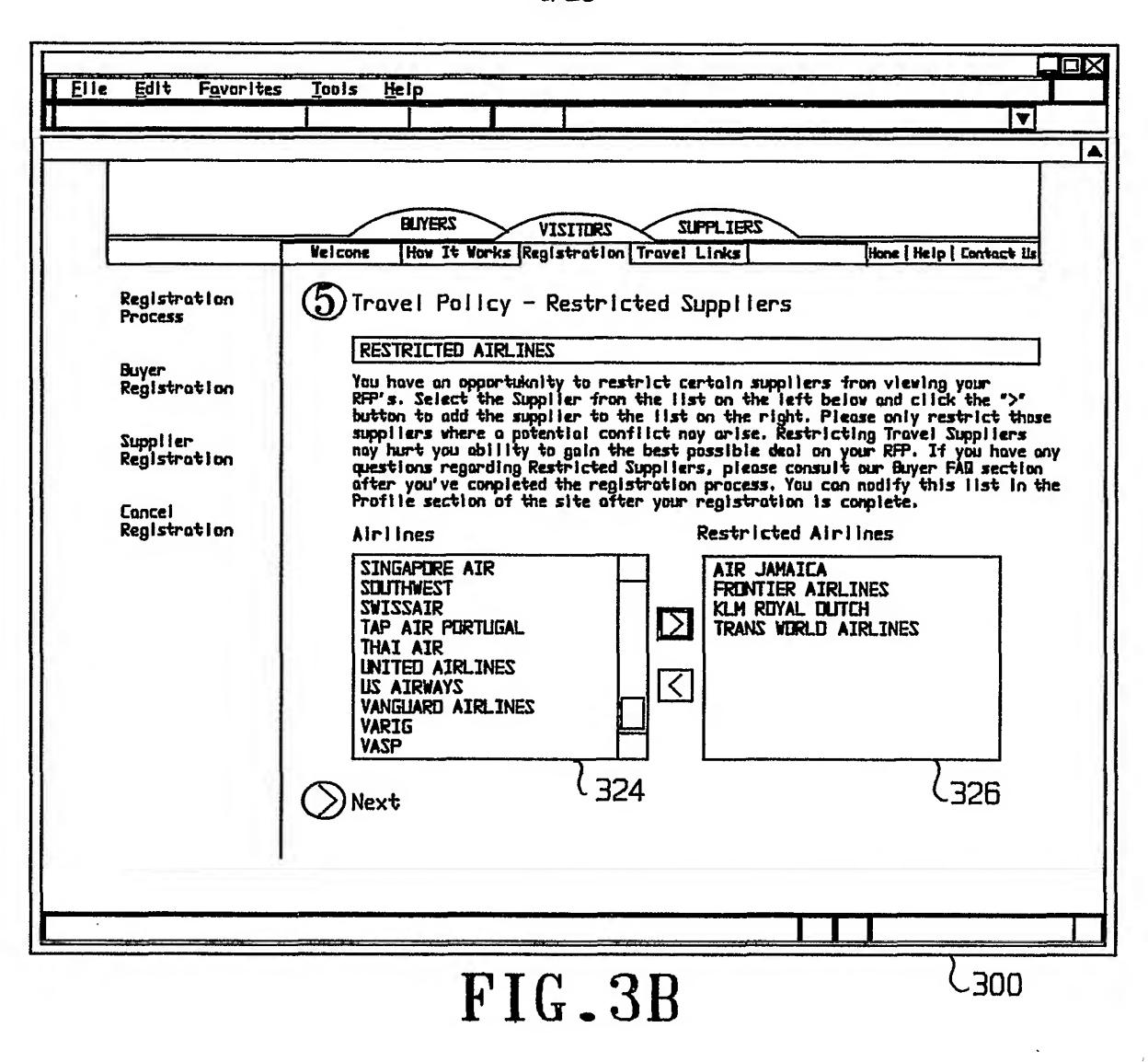
Registration Process  Buyer Registration	3 Enter Primary C	visitors  egistration Travel Links  contact Information  1234 (Buyer Company, Corp.)	one   Help   Contact L
Buyer Registration			
	USER NAME: BUYER	1234 (Buyer Company, Corp.)	
	Mana Nama		32
Supplier	First Nane Last Nane	John *	774
Supplier Registration	Title	Director *	234
Concel	E-mall Address	doembuyerconpany.con   *	236
Registration	Prinary Language	English (North America)	238
		t 215-555-1234 * x 123 240	
	Business Fax	215-555-4321	
	☐ Check here if yo nyTrovei.com	u would like to receive inportant news i	12 updates fron
	PRIMARY CUNTACT I	LOCATION	
	Check here If y Headquarters	your Location Information is the se	ane as Your Cor
	Main Address	*	
18	City	*	
	State/Prov./Other	* <b>▼</b> *	
	Postal Code/Zip Country		V
	Courtor y	* Required Field	
1	Next	•	

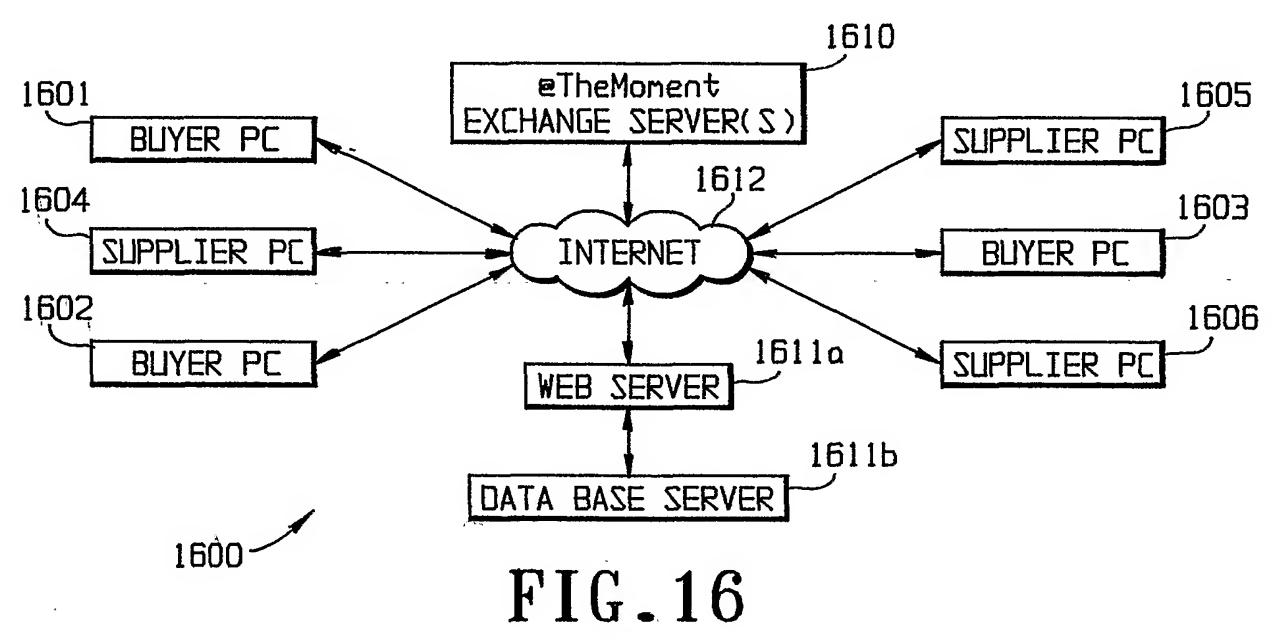
FIG.2C

<u>E</u> dit F <u>a</u> vorit	s Tools Help	
	BUYERS VICITIES SUPPLIERS	
	Welcone   How It Works   Registration   Travel Links   Hone   Help   Contact	
Registration Process	4 Travel Policies and Future Travel Information	
	USER NAME: BLIYER 1234 (Buyer Company, Corp.)	
Buyer Registration	EXCHANGE ALIAS	
	Exchange Alias Arllauchesatiul 302	
Suppiler Registration	Mittadenesavjai	
Cancel	The Exchange Allas provides a way for nyTravel.con to naintain a Buyer's anoninity during the exchange process. This allas should renain confidentia your company and not reference your corporate identity in any way. After conpletion of a successful exchange, you will be asked to update your Exchange	
Registration	Allas. The Exchange Allas nust be unique and consist of a ninimum of 6 alphanumeric characters.	
	BUOKING POLICY	
	Current Travel Agency Arilauchesatjul 304	
	Agency IATA Number 12345678 306	
	teatonio	
	My Travel Policy enforces the use of the above agency for booking travel	
	Yes • No	
	Name the agency required to book your travel 310	
	biz.Travel.con	
	CLASS OF SERVICE POLICY	
	SHORT FLIGHTS 312 LONG FLIGHTS	
	When flying LESS than 4. When flying GREATER than 5	
	hours, ny policy is to fly Coach ▼ hours, ny policy is to fly Business	
	CUNNECTIONS	
	In order to reduce travel costs, ny travelers are  Willing	
	to fly connections in non-stop markets	
	ALTERNATE AIRPURTS	
	In order to reduce travel costs, ny travelers are	
	Willing '▼ 318	
	to use alternate airports within a radius of	
	30 niles	
	TRAVEL PATTERNS	
	Current Annual Air Volume \$ 1000000 USD (please exclude	
	Expected Change In Air Travel + 25 %-322	
	RESTRICTED SUPPLIERS	
	Important:nyTravel.com does NOT permit Buyers to negotiate with Travel Sup	
	they currently have contracts with. If Buyers do not indicate that they have current arrangement with a Travel Supplier, and then proceed to create a contract with the same Travel Supplier through nyTravel.com, both contract become null and void. In addition, the Buyer will be excluded from using nyTravel.com in the future.	

FIG.3A

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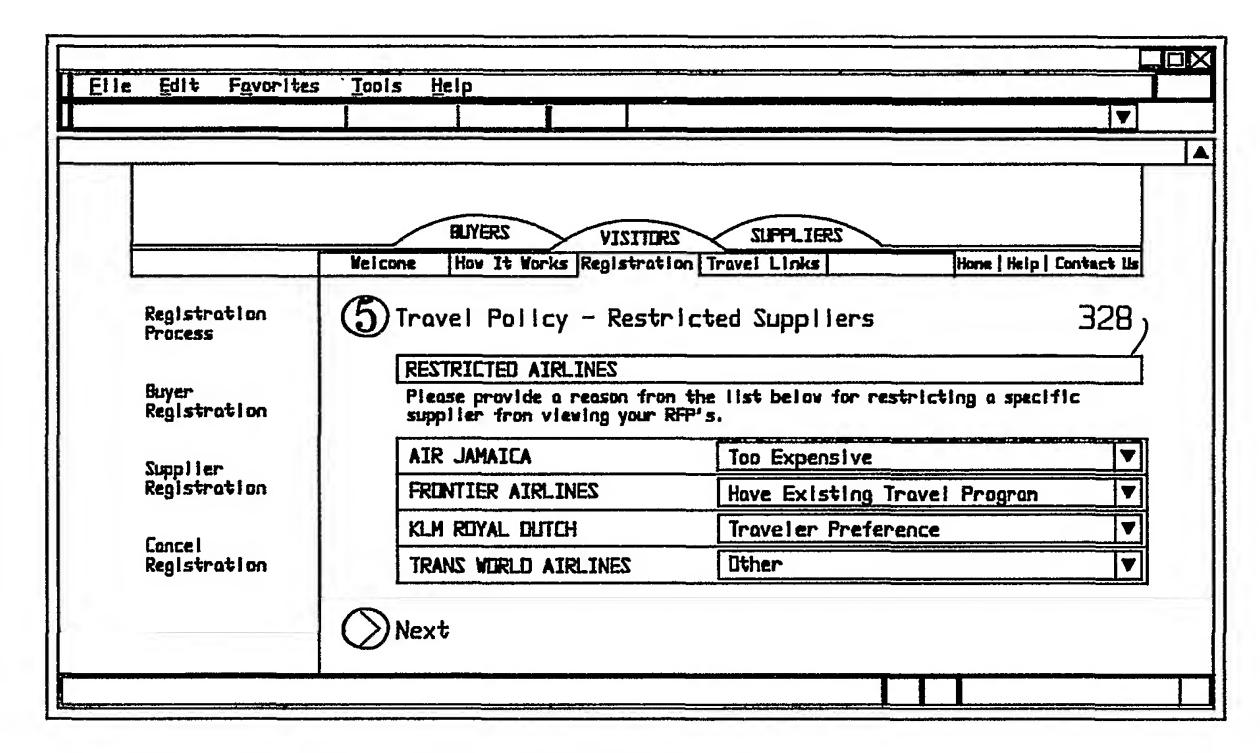


FIG.3C

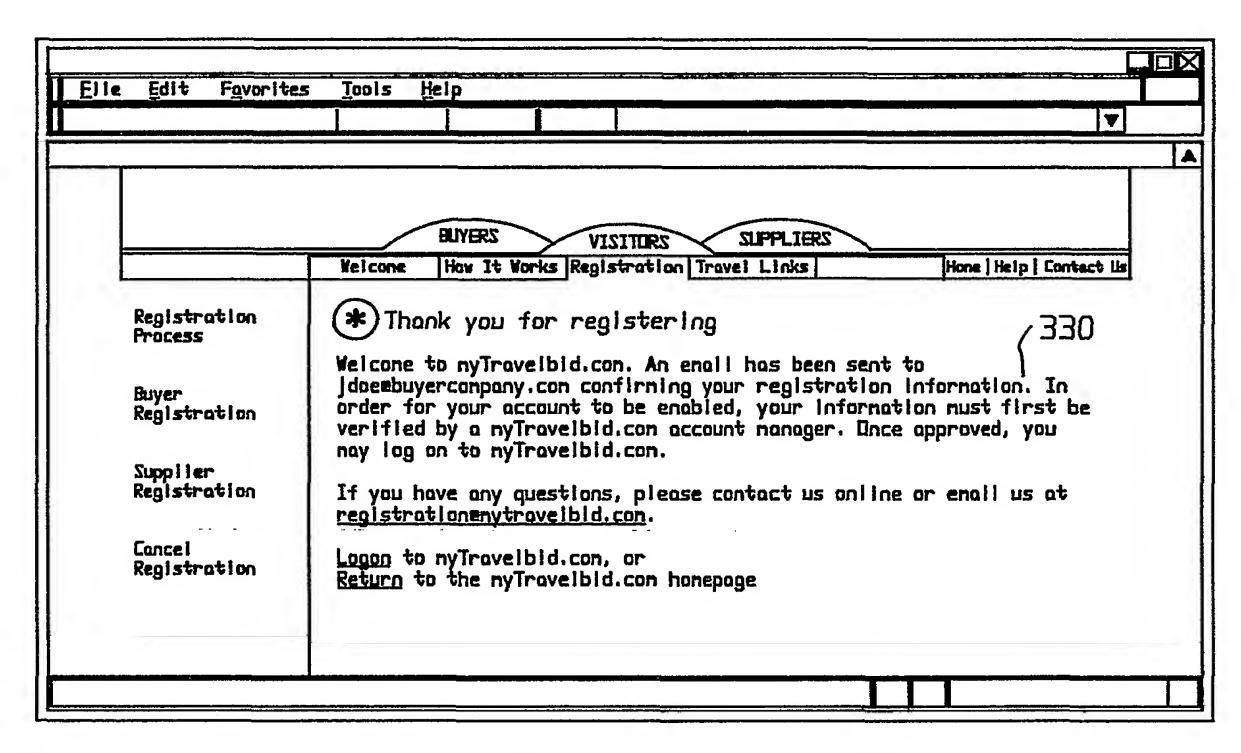
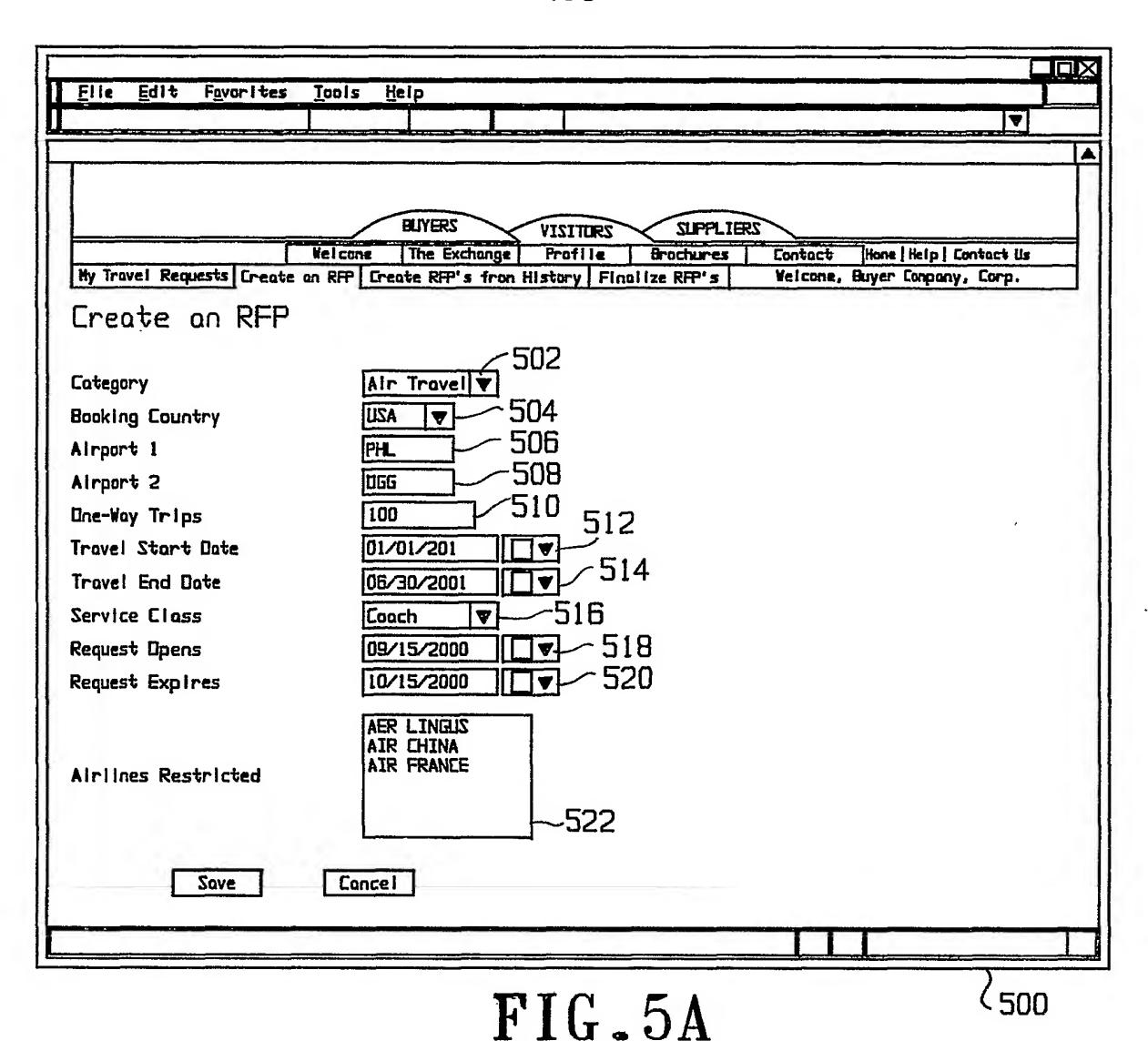
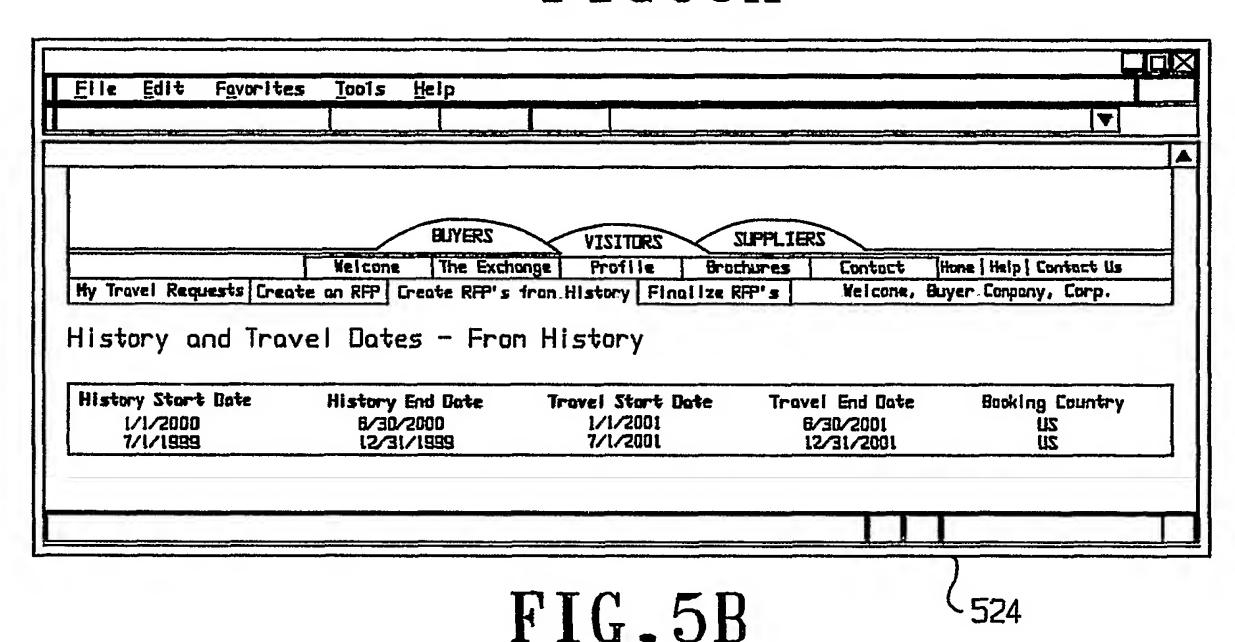


FIG.3D

	BUYERS VISITORS SUPPLIERS
	Welcone The Exchange Profile Brochures Contact Hone Help Contact Li
Velcone to The Exchange	Upload Your Company's Travel History
Enter The Exchange	Currently, History Upload Files nust be in Excel 4.0 or later fornat AND follow the nyTravelbid.con Upload Tenplate. Instructions regarding specifications required for a successful data upload are also found in this file.
Travel History	FILENAME
Upload	Enter filenane to upload 402
Frequently Asked Guestions	TRAVEL DETAILS DATE RANGE
Disciolner	
Rules of The Exchange	From 01/01/00 (nm/dd/yy) 404 To 06/30/00 (nm/dd/yy) 406
Privacy	BOOKING COUNTRY
_	Country LINITED STATES   408
Help	FUTURE TRAVEL DATE COVERAGE FOR THIS REP
Logoff	Fron 01/01/01 (nn/dd/yy)
	From 01/01/01 (nn/dd/yy) 410 To 06/30/01 (nn/dd/yy) 412
	Lipload 412

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**SUBSTITUTE SHEET (RULE 26)** 

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				▼
		VISITORS SUPPLIERS		
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BUIK RFF Lreation	on - From History			(526
Travel Start Date:	1/1/2001	RFP Open Date:		
Travel End Date:	6/30/2001	RFP Close Date:		
	None	7	<del></del>	
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RFP's - From His	story			
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	110	Any Class 🔻	BUS	PHL
□ 8	8	Any Class ▼	BUS	PHL
7	7	Any Class ▼	SOB	PHL
7	7	Any Class ▼	BOZ	PHL
<u> </u>	29	Any Class ▼	DRD	SFO
<u> </u>	20	Any Class ▼	DRD	SFU
	2	Any Class ▼	JFK	LHR
<u> </u>	2	Any Class ▼	JFK	LHR
	1	Any Class ▼	JFK	LHR
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	New	Save All		<b>₹ 320</b>

FIG.5C

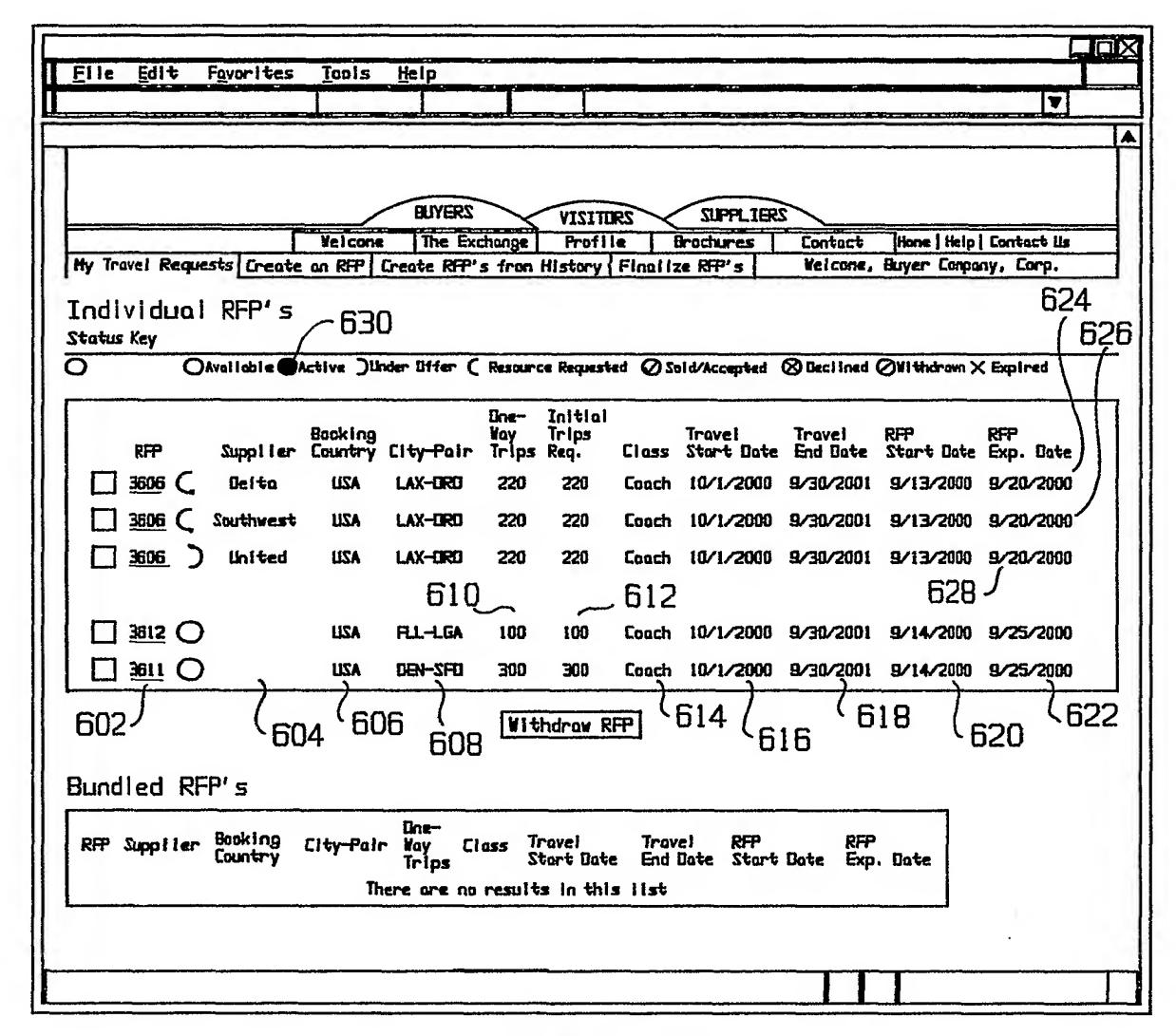


FIG.6

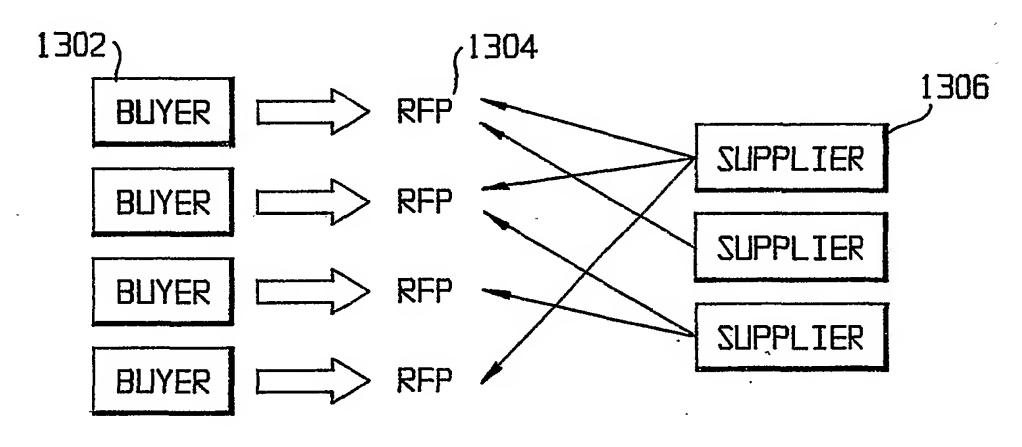


FIG. 13

**SUBSTITUTE SHEET (RULE 26)** 

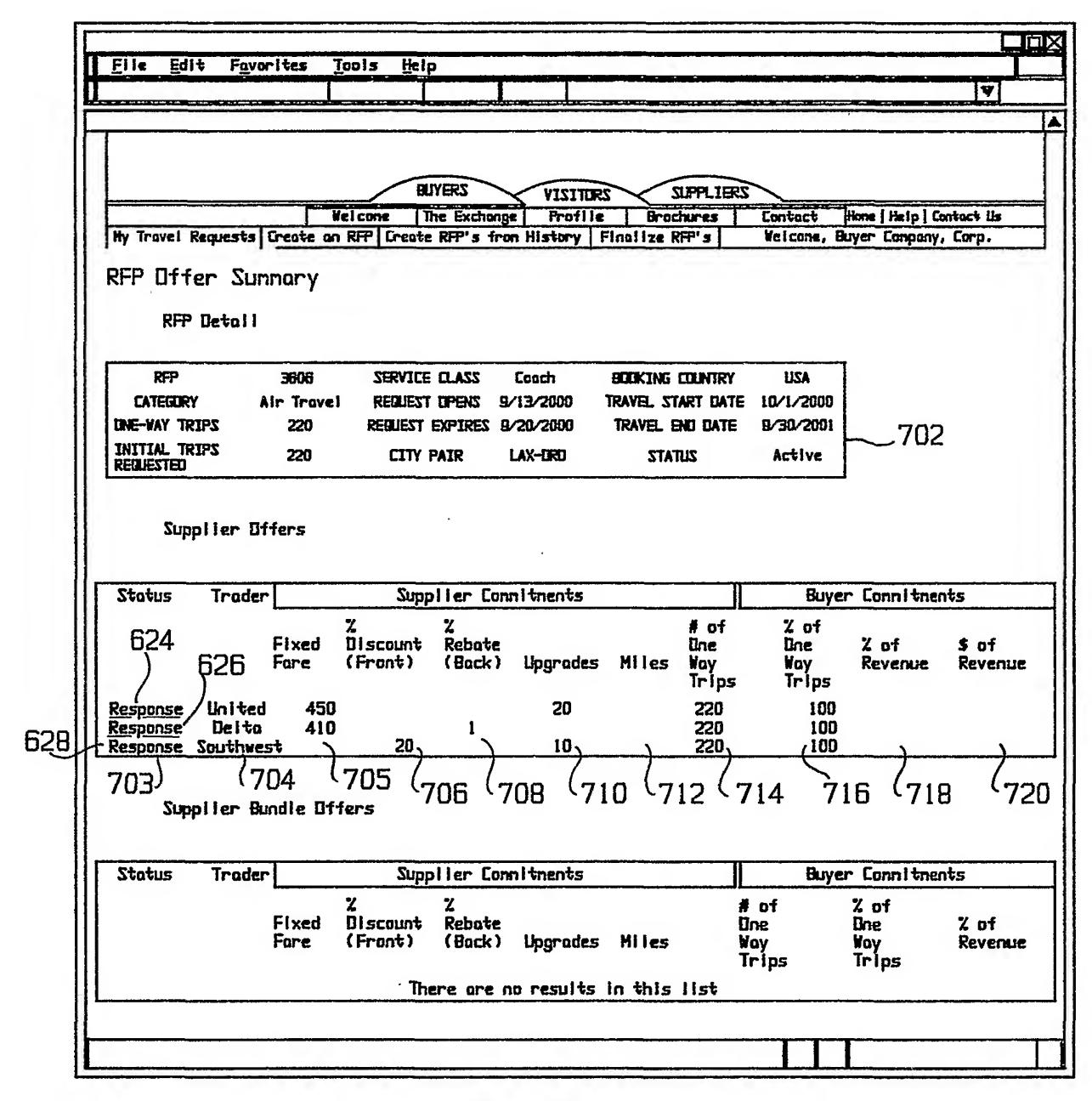
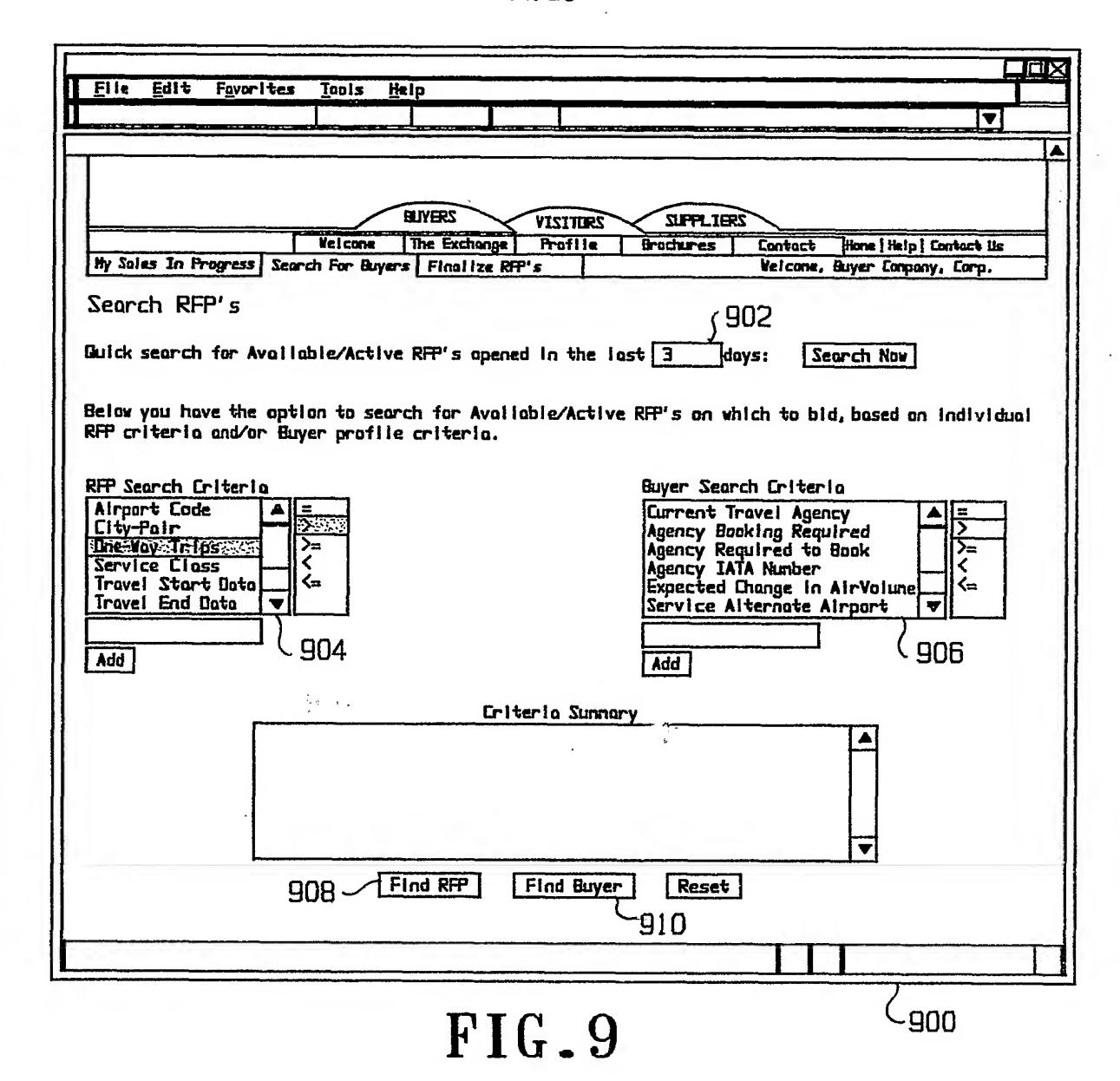


FIG.7

Flie Edit Favo	rites <u>I</u>	ols Help			,			
	•		_					₩ 1 <sub>,</sub>
		BUYERS	-	ZSUTIZI	SUPPLIER			
Hy Travel Requests					e RFP's	Contact Velcone,	Hone   Help   C Buyer Conpany	سناك ومناونات
RFP Bid Deta	i		•					
	· · · · · · · · · · · · · · · · · · ·							
RFP CATEGORY	3606 Air Travel	SERVICE CLAS			ng Colintry Start Dati	AZU 0005/1/01		
DNE-WAY TRIPS	220	REGUEST EXPI			L END DATE	9/30/2001	802	ר
INITIAL TRIPS REQUESTED	220	CITY PAIR	LAX-D	RO S	ZUTAT	Active	002	2
				•			-i	
Status Trade	r	Supp He	- Connitne	ents		Buye	er Connitne	nts
		z z		· · · · · · · · · · · · · · · · · · ·		# of	% of	· · · · · · · · · · · · · · · · · · ·
			bote ock) lipg	rades Mile		Dne Vay	gus gus	¼ of Revenue
624						Trips	Trips	
Response Unite	d 450			20		220	100	
Connents: [9/14/2000][Lin]ted	TAIL ungen	les will be rec	elved ofter	220 sennenti	. ore flown			
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Action: C	) Accept	© Counter O	Decline	Reasons fo	Price	=		<u> </u>
804		2	Z		<del>, , , , , , , , , , , , , , , , , , , </del>	# of	% of	
	Fixed Fore	Discount (Front)	Rebote (Bock)	Upgrades	Miles	Noy Voe	Dne Vay	% of Revenue
			)	,	1 <del> </del>	Trips	Trips	
	425 Connents			15		200	91	<u> </u>
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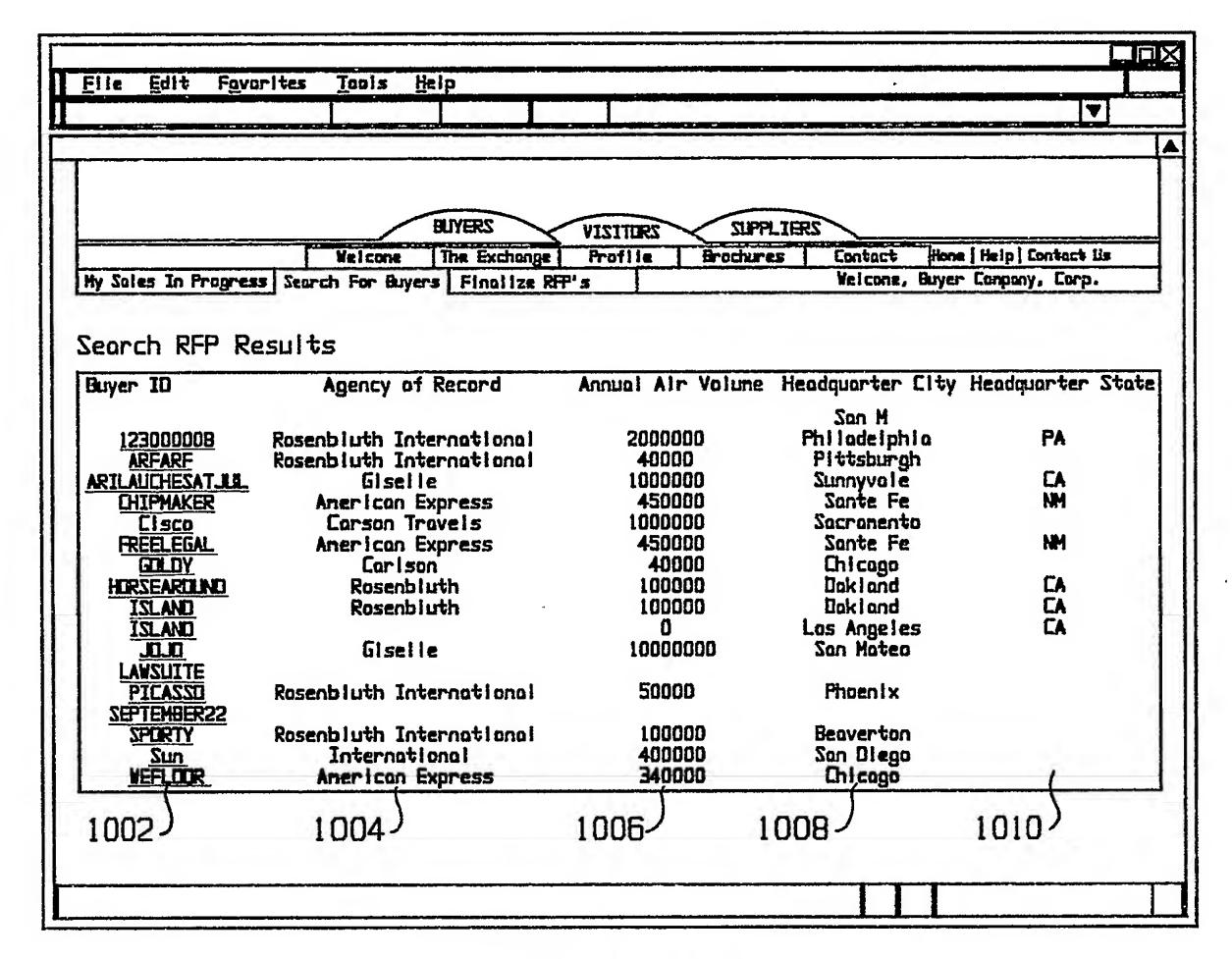


FIG. 10

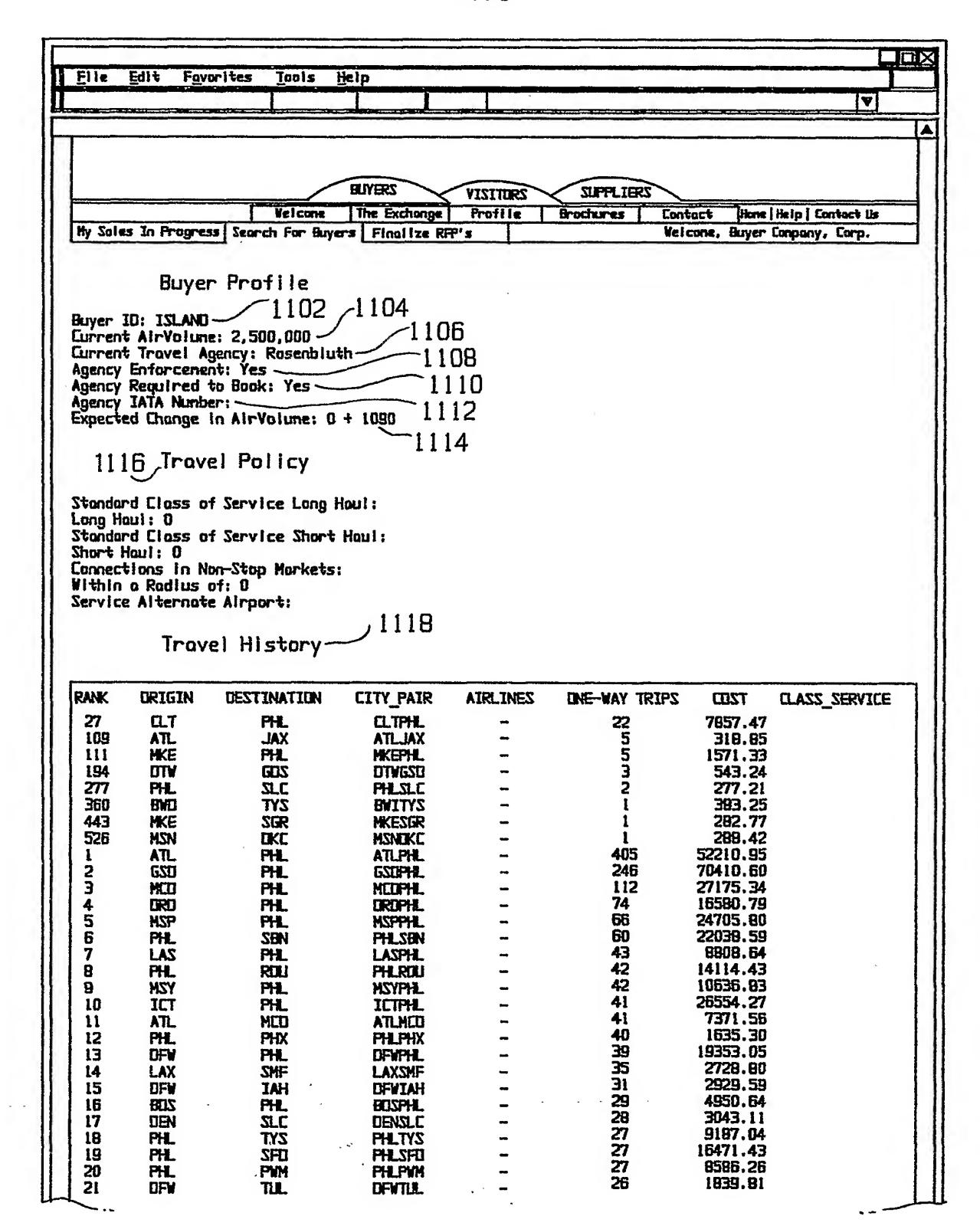


FIG. 11

									▼
			BLIYER	25	VISITURS	SUPPL	IERS		
				Exchange	Profile	Brochures	Contac		lp   Contact ils
sale	In Progress	Search Fo	r Buyers Fi	nalize RF	P's		Welcon	e, Buyer Co	npany, Corp.
, Z.	tatus								
	n. n								
1	Buyer Profl	le Znuuar	y <u>Detolis &amp; T</u>	rovel His	tory				
					450000				
•		nerican Ex		quarters	Santa Fe				
uch	IATA Number								
	RFP Statu	ıs			(1202				
					-1202				(1204)
P	Stotus	Booking Country	City-Pair	Une- Voy Trips	Flight Class	Travel Stort Date		RFP Start Date	RFP Exp. Date
B	Available	Conodo	LAX-SFD	345	Any Class	8/9/2001	9/9/2002	9/9/2000	9/9/2000
<u> </u>	Active	Conado	ALS-SAT	8578	First Class	12/1/2000	12/1/2001	10/1/2000	11/12/2000
7	Active	Conada	XAJ-LAX	<b>e57</b> 8	Business	12/1/2000	12/1/2001	10/1/2000	11/12/2000
8	Active	Conada	SFU-LAX	12593	Any Class	12/1/2008	12/1/2001	10/10/2000	10/12/2000
19	Active	Canada	SFII-LAX	8578	Any Elass	12/1/2000	12/1/2001	10/10/2000	10/12/2000
<u>24</u>	Available	AZU	DTZ-XO9	100	Coach	10/1/2000	11/1/2000	B\10\2000	8/20/2000
18	Available	AZLI	805~DRO	1000	Eoach	8/1/5000	4/1/2001	8/30/2000	0002/1E/8
<u> 12</u>	Active	USA	HUZ-JFK	10	Coach	12/1/2000	12/31/2000	8/29/2000	8/29/2000
16	Active	USA	BOS-LAX	500	Coach	8/10/2000	4/1/2001	B/29/2000	8/10/2000
18	Active	LISA	BOS-DFW	250	Coach	10/1/2000	4/1/2001	8/29/2000	8\30\5000
9	Avallable	LISA	802-CLE	1000	Coach	10/1/2000	4/1/2001	8/29/2000	9/30/2000
30	Active	LISA	1WB-200	500	Coach	10/1/2000	4/1/2001	8/29/2000	9/30/2000
31	Avallable	LISA	BOS-MCD	2500	Coach	10/1/2000	4/1/2001	8/29/2000	9/30/2000
B	Avallable	HZY	905-2FD	50	Eoach	12/1/2000	12/31/2000	9/1/2000	9/15/2000
<u>5</u>	Available	AZIJ	507-F0Z	200	First Class	10/1/5000	10/15/2000	9/13/2000	9/30/2000
Propose Bundles									

FIG. 12

		BLIYE	Pr		SUDDI YER			
	V			Profile	SUPPLIER Brochures	Contact	Hone   Help   C	ontect Us
Hy Sales In Progres	Search	For Buyers   F	inolize RFP's	5		Welcone, I	Buyer Company	. Corp.
RFP Bld Detai	1							
52-5	*****	200 A 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					7	
RFP CATEGORY /	3606 Vir Travel	Buyer 19 Reduest of			ing country 1. Start date	10/1/2000		
UNE-WAY TRIPS	220		PIRES 9/20/2		EL END DATE			
INITIAL TRIPS RELLESTED	220	CITY PAI	R LAX-	ORD	ZUTATZ	Active		
SERVICE CLASS	Coach							
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Status Trader	·		er Connitn	ents			er Connitne	nts
1401		Z Z Discount R	ebote			# of One	% of One	% of
) (1402		(Frant) (	Back) Up	grades Mil		Vay Trips	Way Trips	Revenue
Under-   United				20		220	100	
Offer ) Response ISL <b>AN</b> E	425			15		200	91	
Connents: [9/14/2000][United] [9/15/2000][ISLAND]	All uppro	des vill be re	celved ofte		s ore flown			
Corporate ID Number		1548	]	Ticketin	g Instruct	ions	Must book	in H class
)	Accept	⊚ Counter (	O Decline	Reasons f Decline:		+		
1404	Fixed	Discount Z	% Rebote			# of	% of	% of
	Fare	(Front)	(Back)	Upgrades	Miles	One Vay Trips	Une Vay Trips	Revenue
	425			15		200	91	
	Coments	31						
	1							
	N/- 2/2/2		(2.0.2)			2.552		
ceptance of a bi	d will re	esult in a b	inding con	stract betwe	en buyer o	and the sel	ler.	
				Submit	Concel			

FIG. 14

(1400

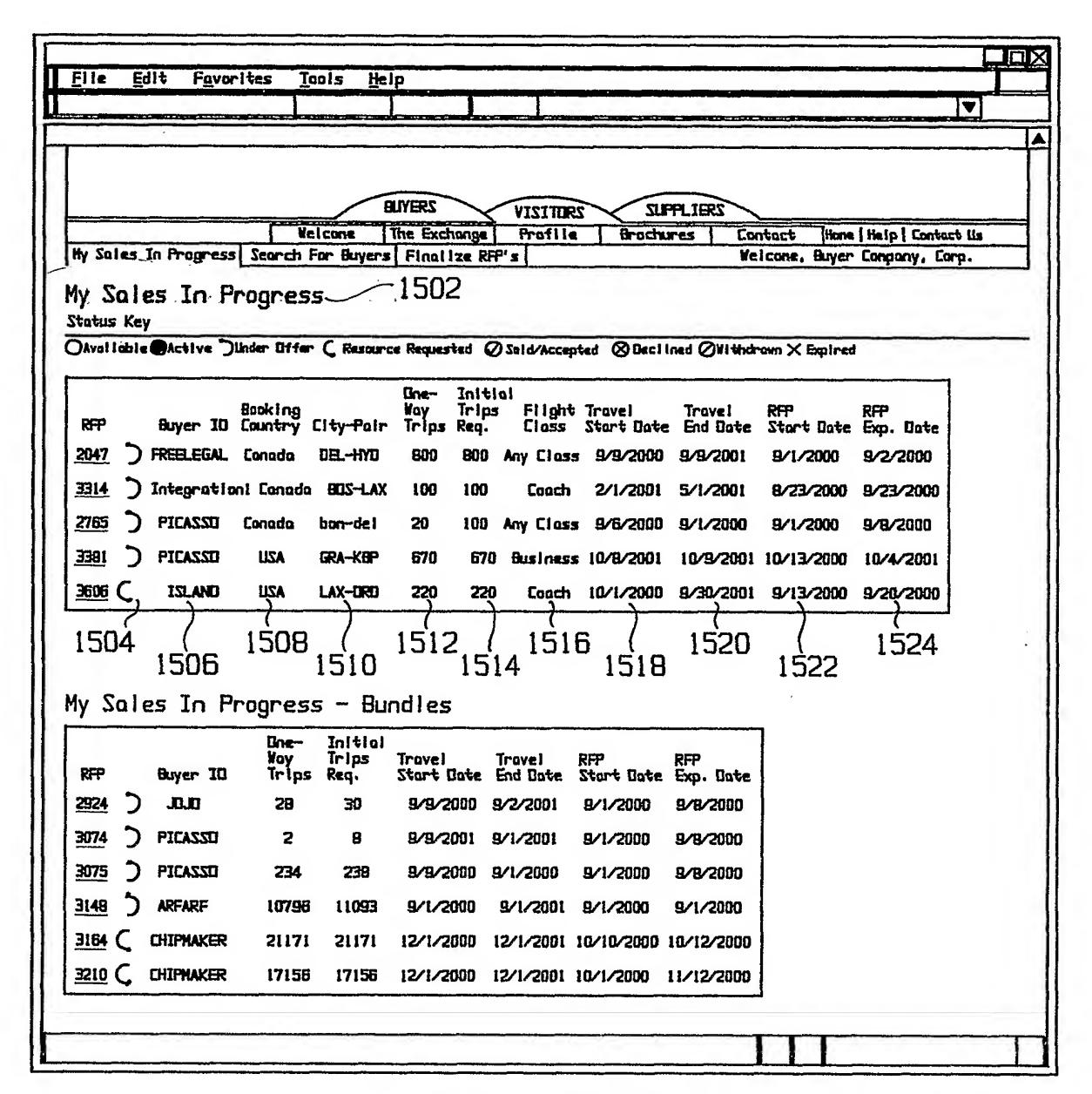


FIG. 15A

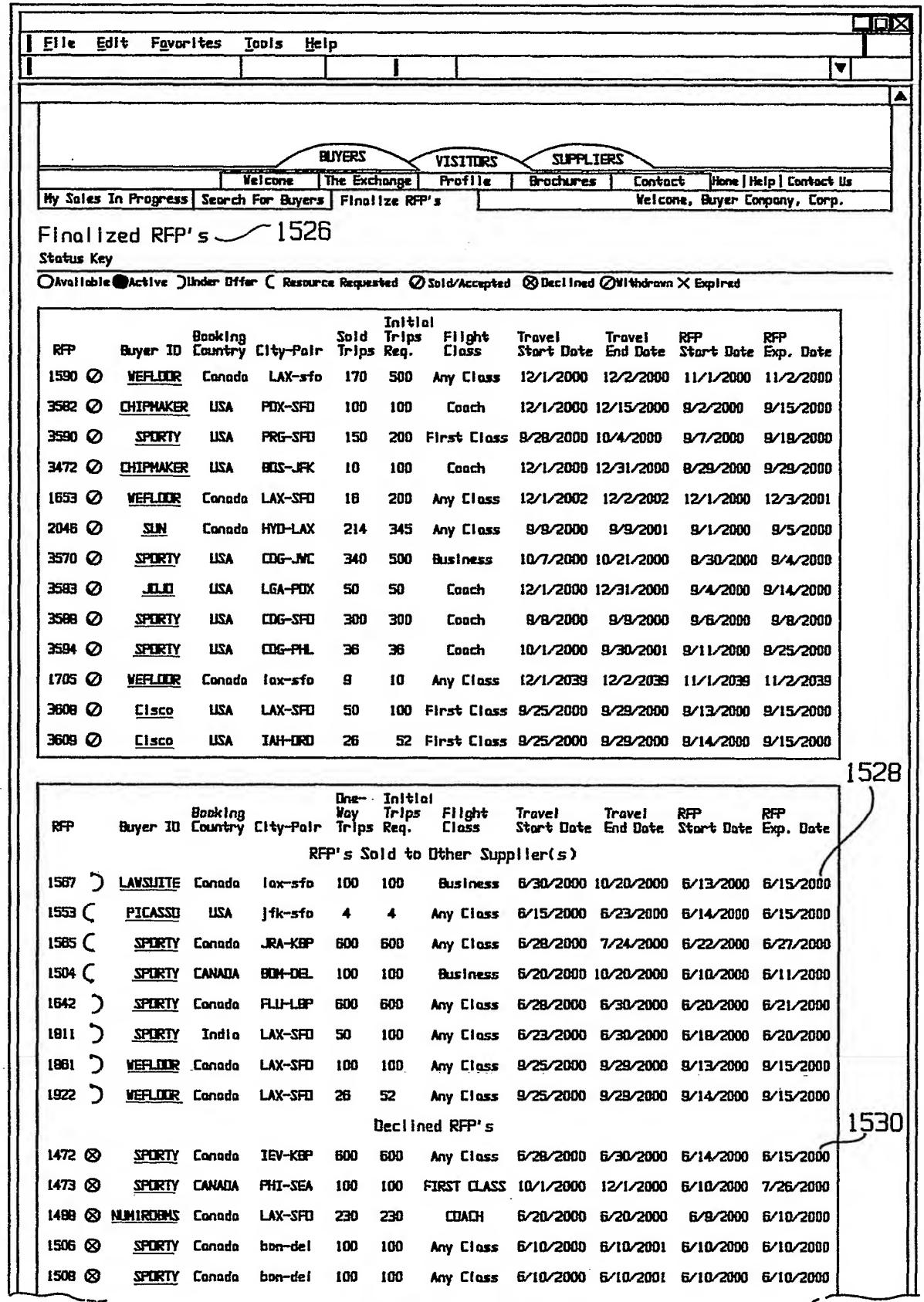


FIG. 15B

## PATENT COOPERATION TREATY

# PCT

## DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

∜PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference	IMPORTANT DE	CLARATION.	Date of mailing(day/month/year)
07882984PCT	IVII OTTANI DE	OLAHAHON	11/12/2001
International application No. PCT/US 01/30699	International filing date(da	ay/month/year) 03/10/2001	(Earliest) Priority date (day/month/year) 03/10/2000
International Patent Classification (IPC) or b	ooth national classification a	and IPC	GO6F17/60
Applicant ROSENBLUTH INTERNATIONAL,	TNC		
ROSENBLUTTI INTLINATIONAL,	THO.		<del>-</del>
This International Searching Authority here be established on the international applic			t no international search report will
1. X The subject matter of the internat	tional application relates to:		
a. scientific theories.			
b. mathematical theories			
c. plant varieties.			
d. animal varieties.			
e. essentially biological process and the products of such process f. schemes, rules or methods o	cesses.	nts and animals, ot	her than microbiological processes
g. schemes, rules or methods o		acts.	
h. schemes, rules or methods o	of playing games.		
i. methods for treatment of the	human body by surgery or	therapy.	
j. methods for treatment of the	animal body by surgery or t	herapy.	
k. diagnostic methods practised	d on the human or animal b	ody.	
I. mere presentations of inform	ation.		
m. computer programs for which	n this International Searchin	g Authority is not e	quipped to search prior art.
2. The failure of the following parts of the	· · · · · · · · · · · · · · · · · · ·	ion to comply with p	prescribed requirements prevents a
the description	the claims		the drawings
3. The failure of the nucleotide and/ Administrative Instructions preve	•	_ , _	the standard provided for in Annex C of the t:
the written form has	not been furnished or does	not comply with th	e standard.
the computer readal	ble form has not been furni	shed or does not co	emply with the standard.
4. Further comments:			
			•
Name and mailing address of the Internation	onal Searching Authority	Authorized officer	
European Patent Office, P.B. 9 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 Fax: (+31-70) 340-3016	5818 Patentlaan 2	Lucia Va	n Pinxteren

#### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

The claims relate to subject matter for which no search is required according to Rule 39 PCT. Given that the claims are formulated in terms of such subject matter or merely specify commonplace features relating to its technological implementation, the search examiner could not establish any technical problem which might potentially have required an inventive step to overcome. Hence it was not possible to carry out a meaningful search into the state of the art (Art. 17(2)(a)(i) and (ii) PCT; see Guidelines Part B Chapter VIII, 1-6).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.